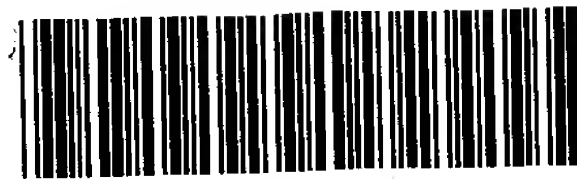


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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/986,119

DATE: 06/03/2002

TIME: 10:33:27

Input Set : N:\Crif3\RULE60\09986119.raw
Output Set: N:\CRF3\06032002\I986119.raw

SEQUENCE LISTING

3 (1) GENERAL INFORMATION:
5 (i) APPLICANT: Rybak, Susanna M.
6 Newton, Dianne L.
7 Goldenberg, David M.
9 (ii) TITLE OF INVENTION: Immunotoxins Directed Against Malignant
10 Cells
12 (iii) NUMBER OF SEQUENCES: 3
14 (iv) CORRESPONDENCE ADDRESS:
15 (A) ADDRESSEE: Townsend and Townsend and Crew LLP
16 (B) STREET: Two Embarcadero Center, Eighth Floor
17 (C) CITY: San Francisco
18 (D) STATE: California
19 (E) COUNTRY: USA
20 (F) ZIP: 94111-3834
22 (v) COMPUTER READABLE FORM:
23 (A) MEDIUM TYPE: Floppy disk
24 (B) COMPUTER: IBM PC compatible
25 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
26 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
28 (vi) CURRENT APPLICATION DATA:
C--> 29 (A) APPLICATION NUMBER: US/09/986,119
C--> 30 (B) FILING DATE: 07-Nov-2001
31 (C) CLASSIFICATION:
33 (vii) PRIOR APPLICATION DATA:
35 (A) APPLICATION NUMBER: US/09/071,672
36 (B) FILING DATE: 01-MAY-1998
38 (A) APPLICATION NUMBER: US 60/046,895
39 (B) FILING DATE: 02-MAY-1997
41 (viii) ATTORNEY/AGENT INFORMATION:
42 (A) NAME: Weber, Ellen Lauver
43 (B) REGISTRATION NUMBER: 32,762
44 (C) REFERENCE/DOCKET NUMBER: 015280-32510US
46 (ix) TELECOMMUNICATION INFORMATION:
47 (A) TELEPHONE: (415) 576-0200
48 (B) TELEFAX: (415) 576-0300
51 (2) INFORMATION FOR SEQ ID NO: 1:
53 (i) SEQUENCE CHARACTERISTICS:
54 (A) LENGTH: 104 amino acids
55 (B) TYPE: amino acid
56 (C) STRANDEDNESS:
57 (D) TOPOLOGY: linear
59 (ii) MOLECULE TYPE: protein

ENTERED

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/986,119

DATE: 06/03/2002
TIME: 10:33:27

Input Set : N:\Crif3\RULE60\09986119.raw
Output Set: N:\CRF3\06032002\I986119.raw

```

62 (ix) FEATURE:
63 (A) NAME/KEY: Modified-site
64 (B) LOCATION: 1
65 (D) OTHER INFORMATION: /product= "OTHER"
66 /note= "Xaa = Glu or pyroglutamic acid"
68 (ix) FEATURE:
69 (A) NAME/KEY: Protein
70 (B) LOCATION: 1..104
71 (D) OTHER INFORMATION: /note= "RNase A derived from
72 Rana pipiens, "onc protein"
75 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
W--> 77 Xaa Asp Trp Leu Thr Phe Gln Lys Lys His Ile Thr Asn Thr Arg Asp
78 1 5 10 15
80 Val Asp Cys Asp Asn Ile Met Ser Thr Asn Leu Phe His Cys Lys Asp
81 20 25 30
83 Lys Asn Thr Phe Ile Tyr Ser Arg Pro Glu Pro Val Lys Ala Ile Cys
84 35 40 45
86 Lys Gly Ile Ile Ala Ser Lys Asn Val Leu Thr Thr Ser Glu Phe Tyr
87 50 55 60
89 Leu Ser Asp Cys Asn Val Thr Ser Arg Pro Cys Lys Tyr Lys Leu Lys
90 65 70 75 80
92 Lys Ser Thr Asn Lys Phe Cys Val Thr Cys Glu Asn Gln Ala Pro Val
93 85 90 95
95 His Phe Val Gly Val Gly Ser Cys
96 100
99 (2) INFORMATION FOR SEQ ID NO: 2:
101 (i) SEQUENCE CHARACTERISTICS:
102 (A) LENGTH: 249 base pairs
103 (B) TYPE: nucleic acid
104 (C) STRANDEDNESS: single
105 (D) TOPOLOGY: linear
W--> 107 (ii) MOLECULE TYPE: DNA
110 (ix) FEATURE:
111 (A) NAME/KEY: -
112 (B) LOCATION: 1..249
113 (D) OTHER INFORMATION: /note= "nucleic acid encoding
114 "onc protein"
117 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
119 GATGTTGATT GTGATAATAT CATGTCAACA AACTTGTTCC ACTGCAAGGA CAAGAACACT 60
121 TTTATCTATT CACGTCCTGA GCCAGTGAAG GCCATCTGTA AAGGAATTAT AGCCTCCAAA 120
123 AATGTGTTAA CTACCTCTGA GTTTATCTC TCTGATTGCA ATGTAACAAG CAGGCCTTGC 180
125 AAGTATAAAT TAAAGAAATC AACTAATAAA TTTTGTGTAA CTTGTGAAAA TCAGGCACCA 240
127 GTTCATTTT 249
130 (2) INFORMATION FOR SEQ ID NO: 3:
132 (i) SEQUENCE CHARACTERISTICS:
133 (A) LENGTH: 83 amino acids
134 (B) TYPE: amino acid
135 (C) STRANDEDNESS:
136 (D) TOPOLOGY: linear

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/986,119

DATE: 06/03/2002

TIME: 10:33:27

Input Set : N:\Crf3\RULE60\09986119.raw

Output Set: N:\CRF3\06032002\I986119.raw

```

138      (ii) MOLECULE TYPE: protein
141      (ix) FEATURE:
142          (A) NAME/KEY: Protein
143          (B) LOCATION: 1..83
144          (D) OTHER INFORMATION: /note= "onc protein", positions 16-98
145 of SEQ ID NO:1"
148      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
150      Asp Val Asp Cys Asp Asn Ile Met Ser Thr Asn Leu Phe His Cys Lys
151      1          5          10          15
153      Asp Lys Asn Thr Phe Ile Tyr Ser Arg Pro Glu Pro Val Lys Ala Ile
154      20          25          30
156      Cys Lys Gly Ile Ile Ala Ser Lys Asn Val Leu Thr Thr Ser Glu Phe
157      35          40          45
159      Tyr Leu Ser Asp Cys Asn Val Thr Ser Arg Pro Cys Lys Tyr Lys Leu
160      50          55          60
162      Lys Lys Ser Thr Asn Lys Phe Cys Val Thr Cys Glu Asn Gln Ala Pro
163      65          70          75          80
165      Val His Phe

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/986,119

DATE: 06/03/2002
TIME: 10:33:28

Input Set : N:\Crf3\RULE60\09986119.raw
Output Set: N:\CRF3\06032002\I986119.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos.1

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/986,119

DATE: 06/03/2002

TIME: 10:33:28

Input Set : N:\Crf3\RULE60\09986119.raw

Output Set: N:\CRF3\06032002\I986119.raw

L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:107 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=2